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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/605,475  | 10/01/2003  | Timothy John Havens  | GEMS 0220 PA        | 2474             |
| 27256   | 7590        | 11/02/2005           | EXAMINER            |                  |
| ARTZ & ARTZ, P.C.<br>28333 TELEGRAPH RD.<br>SUITE 250<br>SOUTHFIELD, MI 48034 |             |                      | VARGAS, DIXOMARA    |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2859                |                  |

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |  |  |
|------------------------------|-------------------------------|--|--|
| <b>Office Action Summary</b> | Application No.<br>10/605,475 | Applicant(s)<br>HAVENS, TIMOTHY JOHN <span style="float: right;">(PW)</span> |  |
|                              | Examiner<br>Dixomara Vargas   | Art Unit<br>2859   |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Newly submitted claim 26 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The original species does not require a the two layers having a capacitance, but not capacitors therebetween as require by specie of claim 26.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim26 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 8-17 and 19-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Burl et al. (6,593,744 B2).

With respect to claims 1, 12 and 13, Burl discloses an integrated electronic system housing (Figures 1-3, housing #84) and magnet structure for an imaging system comprising: a

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magnet structure containing (Figure 1, the MRI system shown): a superconducting magnet (Figure 1, #12); and an RF coil assembly (Figure 1, coil assembly #26 and #34) a housing attached to and external from said magnet structure, said housing containing imaging system structure for support electronics having a controller and not the RF coil assembly (Figure 1, #84); and a radio frequency shield (Figure 1, #36) coupled to said housing (Figure 1) and preventing radio frequency interference between said imaging system support electronics and said RF coil assembly (Column 7, lines 37-53).

4. With respect to claim 2, Burl discloses the shield is coupled within said housing (Figures 1-3).

5. With respect to claims 3 and 15, Burl discloses said imaging system support electronics is encased in said radio frequency shield (Figure 1).

6. With respect to claims 4 and 16, Burl discloses said radio frequency shield is coupled within said housing and encases said imaging system support electronics (Figures 1-3).

7. With respect to claim 5, Burl discloses said imaging system support electronics comprises at least one of a radio frequency amplifier, a gradient amplifier, a timing device, an oscillator, a radio frequency transmitter, a gradient coil controller and a sequence controller (Figure 1).

8. With respect to claims 6 and 17, Burl discloses the radio frequency shield comprises at least one layer (Figure 1).

9. With respect to claims 8-11 and 19-20, Burl discloses the radio frequency shield is metallic, conductive mesh or a superconductor having at least one void (Column 6, lines 9-33).

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10. With respect to claim 14, Burl discloses a second housing (Figure 1, vacuum vessels shown but not numbered and RF shielding #36) containing said magnet structure, wherein said first housing and said second housing are integrally formed as a single housing (Figure 1).

11. With respect to claim 22, see rejections of claims 1 and 14 above.

12. With respect to claim 23, Burl discloses said housing does not contain the magnet structure (Figure 1).

13. With respect to claim 24, Burl discloses said magnet structure and said imaging system support electronics reside within the same room (Figure 1).

14. With respect to claim 25, Burl discloses a second housing that is separate, attached, and external from said first housing and contain said magnet structure (Columns 5-6, lines 63-67 and 1-8 respectively; Figure 1).

15. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burl et al. (6,593,744 B2) in view of Ladebeck (US 5,994,903 A).

With respect to claims 7 and 18, Burl disclose the claimed invention as stated above in paragraph 2 except for the at least one layer comprising: a first layer; and a second layer coupled to the first layer; said first layer and said second layer having capacitance therebetween.

However, Ladebeck discloses at least one layer comprising: a first layer; and a second layer coupled to the first layer; said first layer and said second layer having capacitance therebetween (Figure 2, capacitors #13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Ladebeck's shielding structure including capacitors with Burl's housing for the purpose of short the shield for compensating the magnetic field as shown by Ladebeck (Column 3, lines 50-55).

***Response to Arguments***

16. Applicant's arguments filed 08/23/05 have been fully considered but they are not persuasive.

17. Applicant argues that Burl does not teach or fairly suggest a primary magnet coil and an RF coil in housing #84 and that Burl's structure does not have a controller.

18. The examiner disagrees with applicant's argument because the claim language requires a housing for the support electronics and not for the magnet structure. It is also pointed out that Burl discloses a controller #44 connected to the electronics #70.

***Conclusion***

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

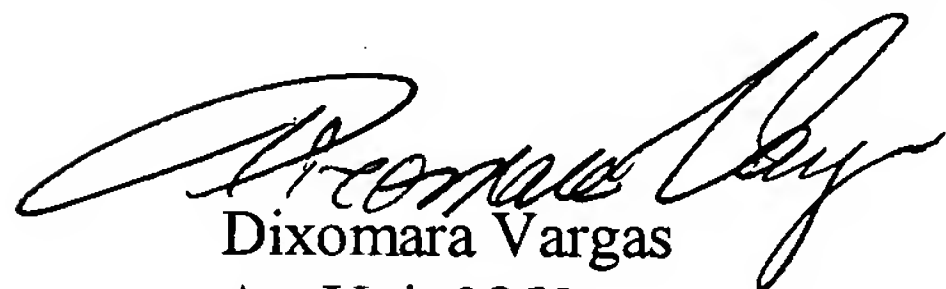
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (571) 272-2252. The examiner can normally be reached on Monday to Thursday from 8:00 am. to 4:30 pm..

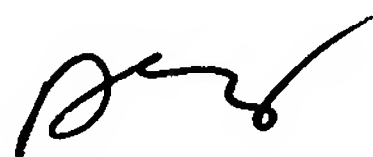
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dixomara Vargas  
Art Unit 2859  
October 31, 2005



Diego Gutierrez  
Supervisory Patent Examiner  
Technology Center 2800